

REMARKS

No claims are amended. Claims 1, 2, 4-7 and 21-24 are now pending in the application. Each issue raised in the Office Actions mailed December 17, 2008, and October 10, 2008 are addressed hereinafter, in order of appearance.

I. ISSUES RELATING TO PRIOR ART

A. CLAIMS 1, 2, 4-7 AND 21-24

Claims 1, 2, 4-7 and 21-24 continue to stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Shaffer et al. (U.S. Patent 6,757,277) in view of Packer et al. (U.S. Patent 6,046,980). The rejection is respectfully traversed.

For convenient reference, a portion of Claim 1 is repeated below.

1. A method for allocating bandwidth of a data network to a plurality of data streams, comprising:

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detecting termination of the particular data stream;
in response to detecting termination of the particular data stream, determining whether another data stream from said particular data class is able to use bandwidth that was allocated to said particular data stream;
in response to detecting that no data stream from said particular class is able to use bandwidth that was allocated to said particular data stream, performing the steps of
(a) selecting an existing data stream based, at least in part, on where the node that corresponds to the data class of the existing data stream is, within the hierarchical policy tree, relative to where the node of said particular class is, within said hierarchical policy tree; and
(b) increasing the bandwidth allocated to said existing data stream.

DETECTING TERMINATION OF A DATA STREAM

Claim 1 recites, inter alia, “**in response to detecting termination of the particular data stream, determining whether another data stream from said particular data class is able to use**

bandwidth that was allocated to said particular data stream” (emphasis added). Claims 21-24 contain similar subject limitations.

Within Claim 1, when a data stream terminates, a check of all data streams belonging to the same class as the terminated data stream is performed. If it is determined that another data stream having the same class as the recently terminated data stream can use the new bandwidth, that other data stream gets that new bandwidth. Thus, the new bandwidth does not merely go to an anonymous pool of available bandwidth. Instead, the method of Claim 1 selectively re-allocates new bandwidth **based on the class of the terminated data stream**.

In rejecting this portion of Claim 1, the Office Action (page 5) relies on Packer's col. 11 line 39 through col. 12 line 16, and also col. 14 lines 32-37. However, Packer does not take into account the class of a dataflow that has terminated. Packer does not track this or any other information about the terminated data stream. Within Packer, allocation of new bandwidth is based solely on the **priority** of existing data flows, **regardless of a class of any terminated data stream**. For example, Packer states that “allocation of bandwidth resources for unreserved service is priority based” (col. 13, lines 21-22). Packer also states that the demands of data flows “are satisfied in order of priority level” (col. 13, line 49). Within Packer, a datastream with a higher priority would be awarded bandwidth over a datastream with a lower priority. This remains true even if the datastream with lower priority belonged to the same class as a terminated datastream, and the datastream with the higher priority did not. Thus, Packer behaves in a way that is contradictory with the language of Claim 1.

LOCATION WITHIN POLICY TREE

Claim 1 further recites, inter alia, “(a) selecting an existing data stream based, at least in part, on where the node that corresponds to the data class of the existing data stream is, within

the hierarchical policy tree, relative to where the node of said particular class (the class of the terminated stream) is, within said hierarchical policy tree”. Claims 21-24 recite similar limitations.

Meanwhile, Packer does not track the class of a data stream that was recently terminated. Within Packer, when a data stream terminates, the bandwidth that was used by the terminated data stream becomes part of a pool of newly-available bandwidth where all new bandwidth is treated exactly the same. No information is available about what class of data stream terminated in order to free up bandwidth. Consequently, it is impossible for Packer to select “an existing data stream based . . . relative to where the node of said particular class (the class of the terminated stream) is, within the hierarchical policy tree” as claimed.

Also, Packer’s priority levels are not stored in Packer’s classification tree 201 (bottom of column 14). Instead, Packer’s tree 201 holds only traffic specifications for traffic classes, and is not used in awarding bandwidth. In allocating unused bandwidth or Excess Information Rate (EIR), Packer does not use the tree 201 whatsoever. Thus it is impossible for Packer to perform the claimed step of “selecting an existing data stream based . . . on where . . . the existing data stream is, within the hierarchical policy tree”.

RESPONSE TO “RESPONSE TO ARGUMENTS”

The “Response to Arguments” section (page 3, section 5) asserts that “bandwidth allocation can be reallocated as taught by Packer among different traffic classes or families of traffic classes on a same layer within the bandwidth classification tree, in [other] words, based on relative locations of the traffic classes in the tree”. However, this assertion does not address and/or overlooks the concept of a terminated datastream. As stated, Packer may be aware that bandwidth has recently come available, but does not keep track of the class of datastream which

terminated and gave rise to the newly available bandwidth. Instead, Packer's "families of traffic classes" refers only to live, active, non-terminated datastreams. Once terminated, no "family" information is retained within Packer. Thus it is impossible for Packer to perform the claimed step of "determining whether another data stream from said particular data class is able to use bandwidth that was allocated to said particular data stream".

For at least the above reasons, the rejections of Claims 1 and 21-24, as well as the rejections of all claims dependent therefrom, are invalid and should be withdrawn.

II. CONCLUSIONS & MISCELLANEOUS

For the reasons set forth above, all of the pending claims are now in condition for allowance. The Examiner is respectfully requested to contact the undersigned by e-mail or telephone relating to any issue that would advance examination of the present application. As per MPEP Chapter 5, Applicant acknowledges that Internet communications may not be secure.

A petition for extension of time, to the extent necessary to make this reply timely filed, is hereby made. If applicable, a check for the petition for extension of time fee and other applicable fees is enclosed herewith. If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to charge any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,
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